

ELO52829053US

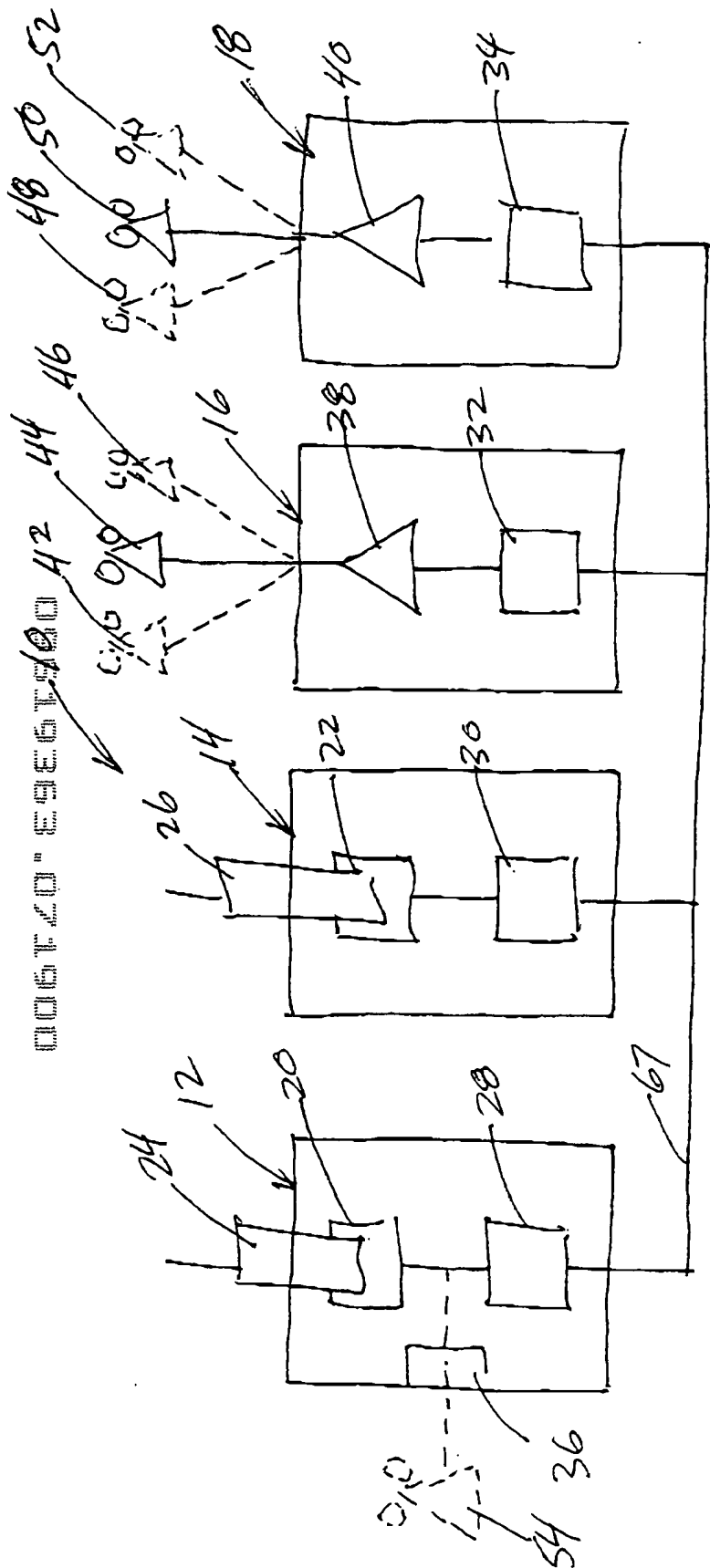
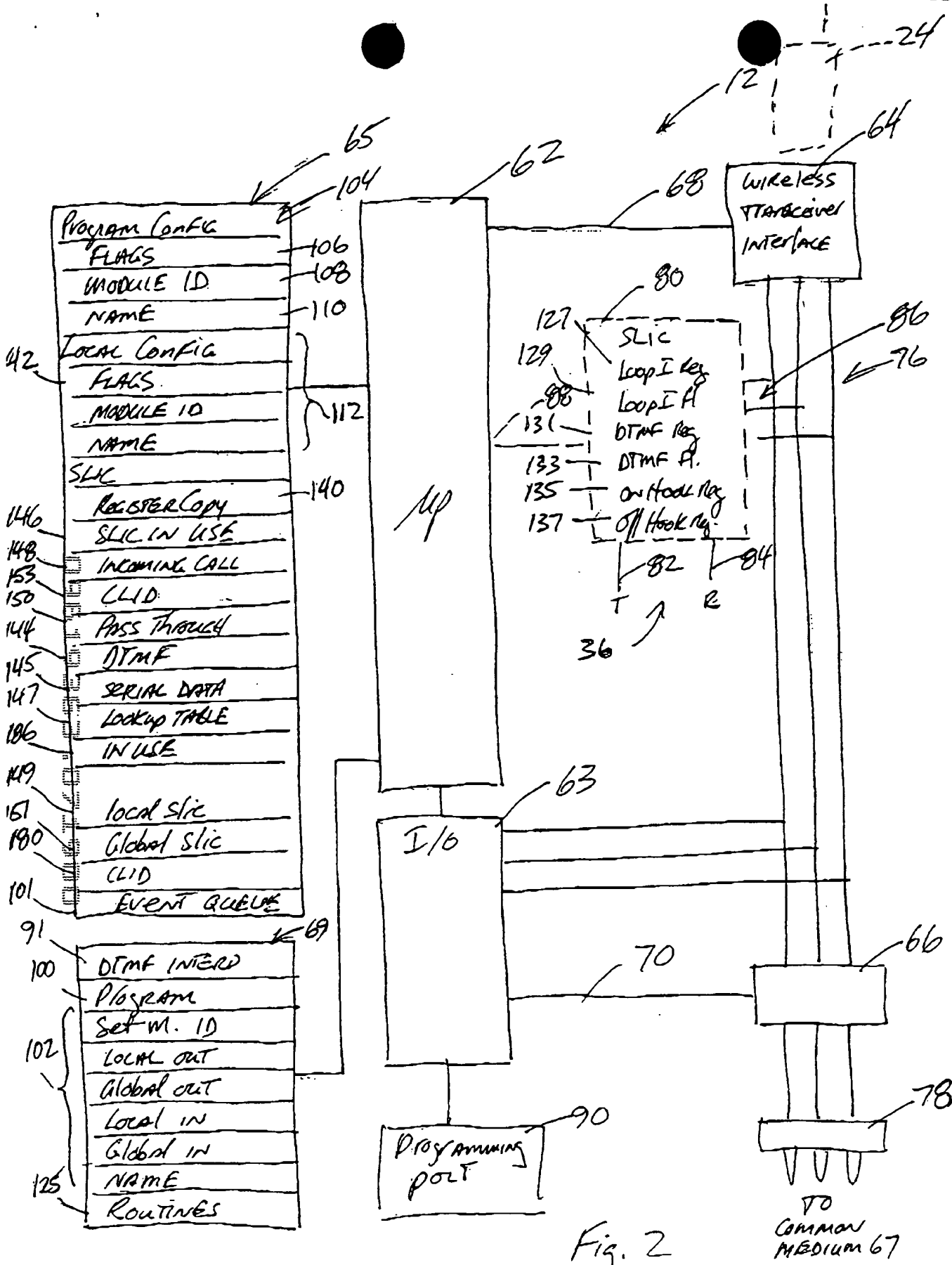


Fig. 1



103

102

Stimulus	Response
Detect DTMF program code from SLIC 80 or wireless interface 64 (ex: *90)	Set program mode flag in RAM 65
Detect digits '1 nnn' from SLIC 80 or wireless interface 64	Set module id = nnn in RAM 65
Detect digits '2', '0' from SLIC 80 or wireless interface 64	Set LOCAL outgoing access flag in RAM 65
Detect digits '2', '1' from SLIC 80 or wireless interface 64	Set GLOBAL outgoing access flag in RAM 65
Detect digits '3', '0' from SLIC 80 or wireless interface 64	Set LOCAL incoming access flag in RAM 65
Detect digits '3', '1' from SLIC 80 or wireless interface 64	Set GLOBAL incoming access flag in RAM 65
Detect digits '4 nnn' from SLIC 80 or wireless interface 64	Set module name = nnn in RAM 65

Fig. 4

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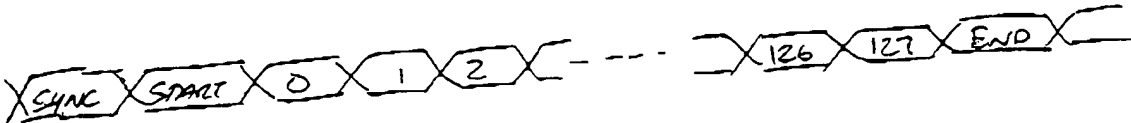


Fig. 3

120

Source (122)	Destination (124)	Command (126)	Length (128)	Data (130)	Checksum (132)
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Fig. 5

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## Command Set: (Channel 0 commands)

## 1.0 Query\_SLIC (166)

SRC	DEST	01	0	NULL	Checksum
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## 1.1 Query\_SLIC Acknowledgement (168)

SRC	DEST	01	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 2.0 Query\_CELL (160)

SRC	DEST	02	0	NULL	Checksum
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## 2.1 Query\_CELL Acknowledgement (162)

SRC	DEST	02	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 3.0 Control\_SLIC (170)

Requests control of a particular SLIC

SRC	DEST	03	0	NULL	Checksum
-----	------	----	---	------	----------

## 3.1 Control\_SLIC Acknowledgement (172)

Response to a Control request to indicate that control has been established.

SRC	DEST	03	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 4.0 Control\_CELL (164)

Requests control of a particular CELL

SRC	DEST	04	0	NULL	Checksum
-----	------	----	---	------	----------

## 4.1 Control\_CELL Acknowledgement

SRC	DEST	04	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 5.0 Free\_SLIC ( )

Releases control of a particular SLIC.

SRC	DEST	05	0	NULL	Checksum
-----	------	----	---	------	----------

## 5.1 Free\_SLIC Acknowledgement

SRC	DEST	05	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 6.0 Free\_CELL (154)

Releases control of a particular CELL

SRC	DEST	06	0	NULL	Checksum
-----	------	----	---	------	----------

## 6.1 Free\_CELL Acknowledgement

SRC	DEST	06	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 7.0 Gen\_RING (174)

Command to SLIC to generate ring tone

SRC	DEST	07	N	Ring Data	Checksum
-----	------	----	---	-----------	----------

## 7.1 Gen\_RING Acknowledgement (176)

SRC	DEST	07	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

Fig. 6A

**8.0 Gen\_TONE**

Command to SLIC to generate a particular tone (CAS, SAS, CP etc)

SRC	DEST	08	N	Tone Data	Checksum

**8.1 Gen\_TONE Acknowledgement**

SRC	DEST	08	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

**9.0 Send\_FSK (182)**

Command to SLIC to transfer FSK data (caller ID, Message waiting, ADSI etc)

SRC	DEST	09	N	CLID Data	Checksum
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**9.1 Send\_CLID Acknowledgement**

SRC	DEST	09	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

**10.0 ConnectAudio\_SLIC (184)**

Command to SLIC to connect audio to a particular PCM channel

SRC	DEST	0A	1	Channel	Checksum
-----	------	----	---	---------	----------

**10.1 ConnectAudio\_SLIC Acknowledgement**

SRC	DEST	0A	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

**11.0 ConnectAudio\_CELL**

Command to CELL to connect audio to a particular PCM channel

SRC	DEST	0B	0	Channel	Checksum
-----	------	----	---	---------	----------

**11.1 ConnectAudio\_CELL Acknowledgement**

SRC	DEST	0B	1	ACK/NACK	Checksum
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**12.0 DisconnectAudio\_SLIC**

Command to SLIC to disconnect audio path

SRC	DEST	0C	1	Channel	Checksum
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**12.1 DisconnectAudio\_SLIC Acknowledgement**

SRC	DEST	0C	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

**13.0 DisconnectAudio\_CELL (152)**

Command to CELL to disconnect audio path

SRC	DEST	0D	0	NULL	Checksum
-----	------	----	---	------	----------

**13.1 DisconnectAudio\_CELL Acknowledgement**

SRC	DEST	0D	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

Fig. 6B

157  
14.0 SLIC\_LineStatus

Message generated by SLIC to indicate line status (on-hook or off-hook)

SRC	DEST	OE	0	NULL	Checksum
-----	------	----	---	------	----------

## 14.1 SLIC\_LineStatus Acknowledgement

SRC	DEST	OE	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

156  
15.0 SLIC\_DigitsDialed (156)

Message generated by SLIC to indicate that digits have been detected at the analog interface

SRC	DEST	OF	1	Digit	Checksum
-----	------	----	---	-------	----------

## 15.1 SLIC\_DigitsDialed Acknowledgement

SRC	DEST	OF	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

158  
16.0 KeyPress\_CELL (158)

Command to CELL telling it to simulate key presses.

SRC	DEST	10	1	Key Data	Checksum
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## 16.1 KeyPress\_CELL Acknowledgement

SRC	DEST	10	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 17.0 CELL\_DigitsDialed

Message generated by CELL to indicate that digits have been detected at the CELL

SRC	DEST	11	1	Digit	Checksum
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## 17.1 CELL\_DigitsDialed Acknowledgement

SRC	DEST	11	1	ACK/NACK	Checksum
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## 18.0 CELL\_CallProgress

Message generated by CELL to indicate call progress tones (SAS, CAS, Busy, Overflow etc)

SRC	DEST	12	1	Key Data	Checksum
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## 18.1 CELL\_CallProgress Acknowledgement

SRC	DEST	12	1	ACK/NACK	Checksum
-----	------	----	---	----------	----------

## 19.0 Global\_Query\_Free\_CELL

Command sent globally to find the existence of a free CELL

SRC	0 (global)	13	0	NULL	Checksum
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## 19.1 Global\_Query\_Free\_CELL Acknowledgement

Returns the identification of a free CELL

SRC	DEST	13	1	ACK/NACK	Checksum
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## 20.0 Global\_Query\_Module\_Exist

SRC	0 (global)	14	0	NULL	Checksum
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## 20.1 Global\_Query\_Module\_Exist Acknowledgement

SRC	DEST	14	1	ACK/NACK	Checksum
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Fig. 6C

Event ID	Stimulus	Response
510	SLIC interrupt	Poll SLIC, read registers, copy registers into RAM 65 Check flags against lookup table for Interrupt Source On-hook: Generate SLIC on-hook event Off-hook: Generate SLIC off-hook event. Check programming tables in RAM 65 and set LOCAL_CELL or GLOBAL_CELL voice routing flag. DTMF: Generate SLIC DTMF event. Store digit in RAM 65.
511	SLIC Off-hook event	Set SLIC_in_use flag in RAM 65. If incoming call flag: Generate connect audio message to SLIC 80. Send "ANSWER" cell phone key to wireless interface 64. If not incoming call flag: Check RAM 65 voice routing flags and generate LOCAL_CELL or GLOBAL_CELL event.
512	SLIC On-hook event	Generate Disconnect Audio message to SLIC 80. If pass through send DisconnectAudio_CELL PCM msg and free_CELL PCM msg to Common medium interface 66 else send "END" key to wireless interface 64. Reset SLIC in use flag in RAM 65.
513	SLIC DTMF event	If no audio connection check for programming codes and if no audio connection: reset digit timeout timer. If pass through generate DigitsDialed_SLIC PCM message with DTMF data else send key press message to wireless interface 64 with DTMF data stored in RAM 65.
514	Digit timeout event	Send connect audio msg to SLIC 80 If pass through flag is set in RAM 65 generate "SEND" key to remote cell via PCM send key command, else generate "SEND" key to wireless interface 64.
515	LOCAL_CELL event	Send Tone ON message to SLIC 80 with Dial tone data.
516	GLOBAL_CELL event	Generate PCM command to query for an available wireless interface, if ACK, store Source field in RAM 65 and generate Control Cell PCM message. If ACK generate connect event. If NACK for either msg, generate connect fail event
520	CELL interrupt	Read serial data, copy into RAM 65. Check against lookup table to determine source: Ringing: Generate CELL incoming call event. Set cell in use flag. Check programming tables in RAM 65 and set LOCAL_SLIC or GLOBAL_SLIC voice routing flag. CLID: Generate CELL CLID data event Call control: generate CELL call control event (call progress tones, caller ID, far end disconnect etc)

Fig. 7A



521	CELL incoming call event	<p>If LOCAL_SLIC flag is set in RAM 65:            If SLIC_in_use flag is not set, generate ring ON msg to SLIC 80. Set incoming call flag in RAM 65. If SLIC_in_use flag is set, return a SLIC busy message to wireless interface 64.</p> <p>If GLOBAL_SLIC flag is set in RAM 65:            Send PCM query SLIC message to Common medium interface 66. If ACK then send PCM Control SLIC. If ACK then send PCM Gen_RING msg.            If NACK to any then send busy msg to wireless interface 64</p>
522	CELL CLID data event	<p>Store CLID data in RAM 65.            If GLOBAL_SLIC flag is set in RAM 65:            Send PCM send_CLID msg to Common medium interface 66 to transmit CLID data stored in RAM 65.</p> <p>If LOCAL_SLIC flag is set:            Send series of Tone ON/OFF commands to SLIC to transmit CLID data stored in RAM 65 to SLIC 80 in FSK format (series of 1200/2200 Hz tones at 1200 bits/second)</p>
523	CELL call control event with data	<p>If CELL on hook msg, generate Disconnect Audio msg to SLIC 80. If other call control events (call progress tones etc) generate appropriate tone ON commands to SLIC 80 for analog equivalent tone (busy, overflow, CAS etc)</p>
524	Connect event	Set pass through flag in RAM 65. Send Tone ON message to SLIC 80 with Dial tone data.
525	Connect fail event	Send tone ON msg with recall tone data to SLIC 80
530	PCM CELL call control event with data	<p>If pass through flag is set in RAM 65:            If PCM CELL on hook msg, generate Disconnect Audio msg to SLIC 80. If other call control events (call progress tones etc) generate appropriate tone ON commands to SLIC 80 for analog equivalent tone (busy, overflow, CAS etc)</p>
531	PCM SLIC call control events with data	<p>If pass through flag is set in RAM 65:            If PCM SLIC on hook msg, generate send "END" key to wireless interface 64. If other call-control events, generate appropriate commands to wireless interface 64 for cellular equivalent message.</p>
532	PCM line status SLIC	If off-hook send PCM Connect Audio SLIC msg to Common medium interface 66. Set pass through flag in RAM 65
533	PCM Query SLIC msg	Send PCM Query SLIC ACK/NACK depending on state of SLIC_in_use flag in RAM 65
534	PCM msgs	All PCM messages listed in PCM section are accepted by the microprocessor and converted to CELL or SLIC equivalents.

Fig. 7B

0061936 "071900

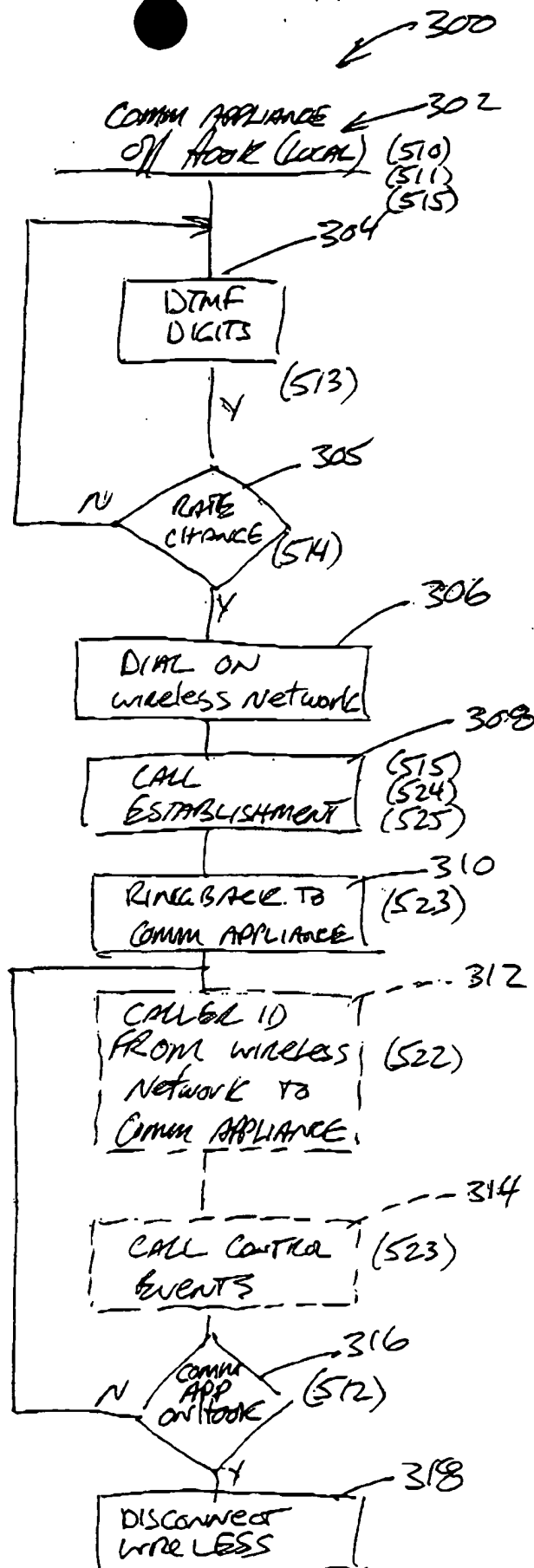


Fig 8

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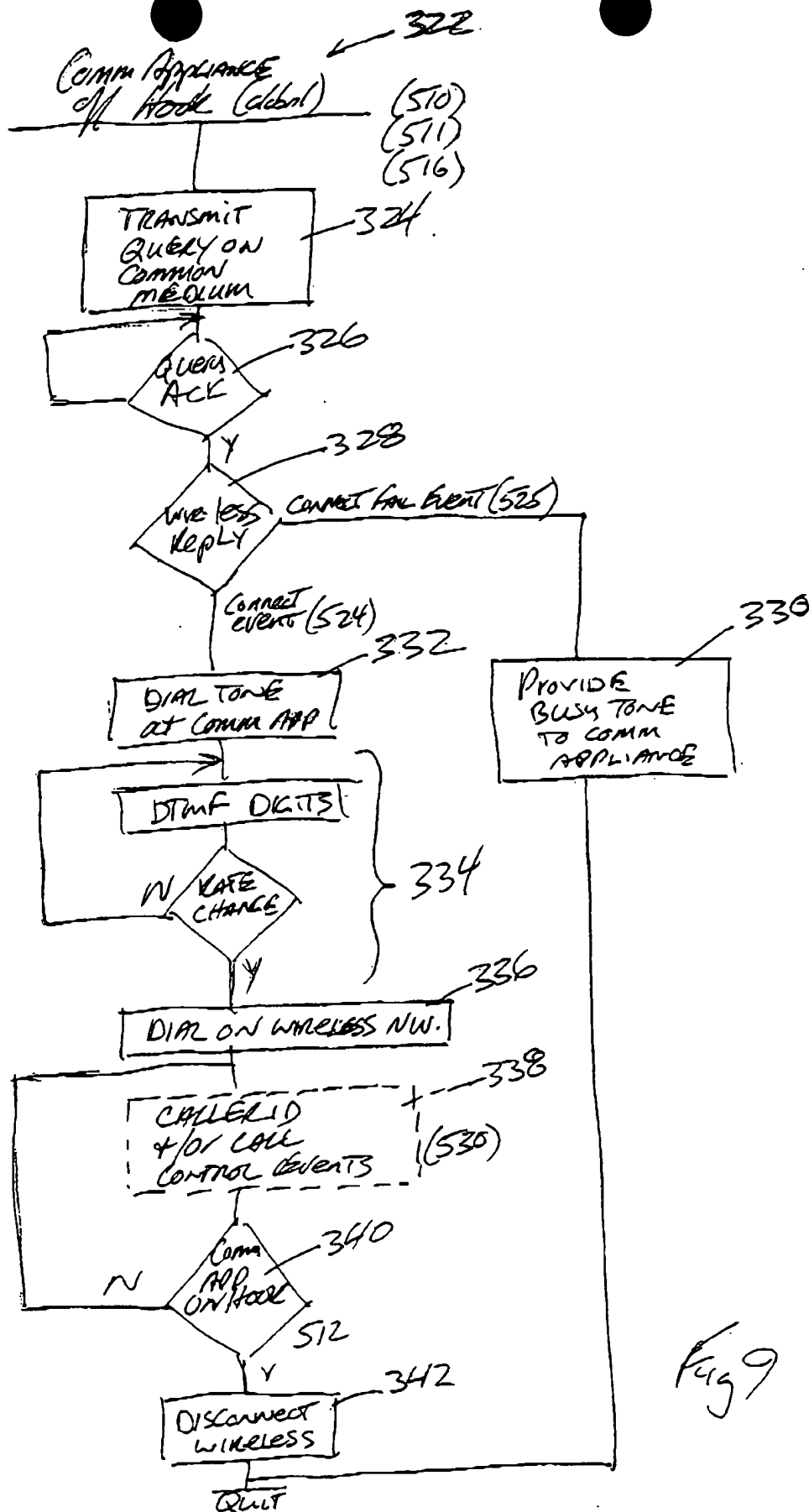


Fig 9

